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| 10/576,586 | 04/20/2006 | Toshiaki Mori | 2006-0507A | 7273 |
| 52349 7590 09/30/2008 WENDEROTH, LIND & PONACK L.L.P. 2033 K. STREET, NW SUITE 800 WASHINGTON, DC 20006 | | | | |
| EXAMINER | | | | |
| CHOKSHI, PINKAL R | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/576,586

Applicant(s)

MORI ET AL.

Examiner

PINKAL CHOKSHI

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 04/20/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter). Claims 10 and 11 are claiming a program and program itself cannot be patented.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-3, 5, 6, 8 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over US PG Pub 2002/0183026 to Naruse et al (hereafter referenced as Naruse) in view of US PG Pub 2004/0154043 to Roman et al (hereafter referenced as Roman).

Regarding **claim 1**, "a content reproduction device that performs streaming reproduction of a content" reads on the communication quality of data

between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to "said device comprising: a content reconstruction unit having a buffer in which each segmented data of the content received by each of said communication units is temporarily accumulated, and operable to reconstruct each segmented data accumulated in said buffer into the content" Naruse discloses (§§0035 and §0111) that the mobile terminal includes data storage unit that stores data, such as audio, video, text, received in receiving unit and transmit the content to decoder unit as represented in Fig. 2 (element 17).

As to "a reproduction unit operable to extract the content from said buffer at a predetermined bit rate and to reproduce the content at the predetermined bit rate, the content having been reconstructed by said content reconstruction unit" Naruse discloses (§0038) that the decoder (reproduction unit) decodes and produce the data received and stored in the storage device to the output device as represented in Fig. 2 (element 18). Naruse further discloses (§0038 and §0043) that the decoder decodes contents based on the predetermined bit rate information received from the control unit.

As to "a communication control unit operable to: calculate, for every predetermined time, target transmission speeds to be assigned for content reception performed by said respective communication units, based on free space in said buffer and the bit rate" Naruse discloses (§0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to

control the bit rate as represented in Fig. 4. Naruse further discloses (§0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit.

As to "transmit a first request signal indicating the calculated target transmission speeds to the content transmission device via one of said communication units" Naruse discloses (§0052 and §0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit as represented in Fig. 4.

Naruse meets all the limitations of the claim except "a plurality of communication units, each being operable to receive a content transmitted in segments from a content transmission device over a communication path." However, Roman discloses (§0028) that the end user device receives cable content via telecommunication network that includes wireless LAN and cellular network as represented in Figs. 5 and 6. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's invention by using multiple communication units to receive contents as taught by Roman in order to deliver wide range of entertainment and data services to users using separate telecommunication services (§0005).

Regarding **claim 2**, "the content reproduction device wherein the first request signal indicates addresses for said respective communication units" Roman discloses (§0036 and claim 10) that the cable content is communicated

to the device based on the IP address of the device in a data network.

Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's invention by indicating addresses for communication units as taught by Roman in order to deliver wide range of entertainment and data services to users using correct transmission speed.

Regarding **claim 3**, "the content reproduction device wherein the first request signal is a content obtainment command indicating addresses for said respective communication units" Naruse discloses (§¶0052 and ¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit. Naruse does not explicitly teach that the request signal includes the address for communication unit. Roman discloses (§¶0036 and claim 10) that the cable content is communicated to the device based on the IP address of the device in a data network. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's invention by indicating addresses for communication units as taught by Roman in order to deliver wide range of entertainment and data services to users using correct transmission speed.

Regarding **claim 5**, "the content reproduction device further comprising: a reception state storage unit which stores, in advance, data reception speeds of said respective communication units at each position on the traveling route

obtained by said traveling route obtainment unit” Naruse discloses (§§0097-§§0099) that the storage unit in mobile wireless terminal stores content data in case the data transmission speed decreases on the traveling path.

As to “wherein said communication control unit is operable to determine the target transmission speeds of said respective communication units based on free space in said buffer and the data reception speeds of said respective communication units at a position indicated by information on a planned transit position after the present position, the data reception speeds being stored in said reception state storage unit” Naruse discloses (§§0050) that the receiving control unit in mobile terminal determines the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (§§0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit. Naruse discloses (§§0097-§§0099) that the storage unit in mobile wireless terminal stores content data in case the data transmission speed decreases on the traveling path

Naruse meets all the limitations of the claim except “a present position detection unit operable to detect a present position and a traveling route obtainment unit operable to obtain a traveling route starting from the present position detected by said present position detection unit” Roman discloses (§§0033 and §§0034) that the content data is transmitted to receiver that includes GPS, which is used to measure current position as well as traveling route

information as represented in Figs. 9 and 10. In addition, same motivation is used at to reject claim 1.

Regarding **claim 6**, "the content reproduction device further comprising a reception speed measurement unit operable to measure data reception speeds of said respective communication units" Naruse discloses (§0060) that the unit determines reception/transmission speed received in mobile terminal as represented in Fig. 5 (element SP14).

As to "wherein said communication control unit is operable to: calculate modified target transmission speeds, each being calculated based on a difference between the target transmission speed assigned for the content reception of each of said communication units and each of the data reception speeds measured by said reception speed measurement unit and transmit a second request signal indicating the calculated target transmission speeds to the content transmission device via one of said communication units" Naruse discloses (§0048-§0055) that the transmission system transmits pilot signal to mobile terminal where mobile terminal determines transmission speed and based on the reception speed received in mobile terminal, it transmits request of corrected transmission speed to transmission system. Transmission system receives the request of corrected transmission speed and transmits data using modulation system corresponding to corrected transmission speed and mobile

terminal receives data at corrected transmission speed as represented in Fig. 4 (elements SP1-SP9).

Regarding **claim 8**, “a content reproduction method for performing streaming reproduction of a content” reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to “a content reconstruction step of temporarily accumulating, in a buffer, each segmented data of the content received in each of said communication steps, and reconstructing each segmented data accumulated in the buffer into the content” Naruse discloses (§0035 and §0111) that the mobile terminal includes data storage unit that stores data, such as audio, video, text, received in receiving unit and transmit the content to decoder unit as represented in Fig. 2 (element 17).

As to “a reproduction step of extracting the content from the buffer at a predetermined bit rate and reproducing the content at the predetermined bit rate, the content having been reconstructed in said content reconstruction step” Naruse discloses (§0038) that the decoder (reproduction unit) decodes and produce the data received and stored in the storage device to the output device as represented in Fig. 2 (element 18). Naruse further discloses (§0038 and §0043) that the decoder decodes contents based on the predetermined bit rate information received from the control unit.

As to “a communication control step of: calculating, for every predetermined time, target transmission speeds to be assigned for content reception performed in said respective communication steps, based on free space in the buffer and the bit rate” Naruse discloses (§¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (§¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit.

As to “transmitting a first request signal indicating the calculated target transmission speeds to the content transmission device using one of said communication steps” Naruse discloses (§¶0052 and §¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit as represented in Fig. 4.

Naruse meets all the limitations of the claim except “said method comprising: a plurality of communication steps, in each of which a content transmitted in segments from a content transmission device over a communication path is received.” However, Roman discloses (§¶0028) that the end user device receives cable content via telecommunication network that includes wireless LAN and cellular network as represented in Figs. 5 and 6. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse’s invention by using multiple communication units to receive contents as taught by Roman in order to deliver

wide range of entertainment and data services to users using separate telecommunication services (§0005).

Regarding **claim 10**, combination of Naruse and Roman meets all the limitations of the claim except "a program for a content reproduction device that performs streaming reproduction of a content, said program causing a computer to execute the steps included in the content reproduction method according to claim 8." However, the Examiner takes official notice that it was well known in the art at the time of the invention to store computer program on computer readable medium. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to store computer readable program on recorded medium to Naruse and Roman's system would have yielded predictable result of easily installing program on the other computer devices.

4. **Claim 4, 7, 9, and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Naruse in view of Roman et al as applied to claim 1 above, and further in view of US PG Pub 2005/0034158 to Delavega et al (hereafter referenced as Delavega).

Regarding **claim 4**, combination of Naruse and Roman meets all the limitations of the claim except "the content reproduction device further comprising a communication fee storage unit which stores, in advance, communication fees of said respective communication units, wherein said communication control unit is operable to determine the target transmission speeds of said respective

communication units based on the communication fees.” However, Delavega discloses (¶¶0018 and ¶¶0048) that the viewer previously purchases program content on wholesale/unlimited use billing. Delavega further discloses (¶¶0027 and ¶¶0028) that in a WAN/Wi-fi base station, receiver receives data at upto 54 mbps and in cellular wireless network, data speed is ranging 50 to 144 kbps. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Roman’s inventions by previously paying for program content as taught by Delavega so the viewer does not have to go through trouble of making payment while watching program content.

Regarding **claim 7**, “a content transmission device that transmits a content over a communication path” reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to “said device comprising: a content accumulation unit operable to accumulate a content” Naruse discloses (¶¶0032) that the data storage unit stores content data as represented in Fig. 2 (element 12).

As to “a communication unit operable to communicate, over the communication path, with a content reproduction device that includes a plurality of communication units with different addresses” Naruse discloses (¶¶0034) that the data output unit and transmission control unit communicates with mobile

terminal over communication path as represented in Fig. 2 (elements 13, 14, 15, 16, 20).

As to "a content segmentation unit operable to: determine amounts of content data to be transmitted based on target transmission speeds of the respective addresses every time a first request signal indicating target transmission speeds of the respective addresses is received, the amounts of content data to be transmitted being determined for the respective addresses" Naruse discloses (§¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (§¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit. Naruse further discloses (§¶0052 and §¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit as represented in Fig. 4.

As to "segment the content accumulated in said content accumulation unit and transmit each segmented data of the content addressed to each of the addresses via said communication unit" Naruse discloses (§¶0034) that the transmission system transmits packetized data of audio, video, data to mobile terminal as represented in Fig. 2.

Naruse meets all the limitations of the claim except "content transmitted to communication units with addresses". However, Roman discloses (§¶0036 and claim 10) that the cable content is communicated to the device based on the IP

address of the device in a data network. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's invention by indicating addresses for communication units as taught by Roman in order to deliver wide range of entertainment and data services to users using correct transmission speed.

Combination of Naruse and Roman meets all the limitations of the claim except "content data is transmitted based on transmission speeds of addresses". Delavega further discloses (§0027 and §0028) that in a WAN/Wi-fi base station, receiver receives data at upto 54 mbps and in cellular wireless network, data speed is ranging 50 to 144 kbps. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Roman's inventions by previously paying for program content as taught by Delavega so the viewer does not have to go through trouble of making payment while watching program content.

Regarding **claim 9**, "a content transmission method for transmitting a content over a communication path" reads on the communication quality of data between the transmission system and the receiver (abstract) disclosed by Naruse and represented in Fig. 1.

As to "said method comprising: a communication step of communicating, over the communication path, with a content reproduction device that includes a plurality of communication units with different addresses" Naruse discloses

(¶0034) that the data output unit and transmission control unit communicates with mobile terminal over communication path as represented in Fig. 2 (elements 13, 14, 15, 16, 20).

As to "a content segmentation step of: determining amounts of content data to be transmitted based on target transmission speeds of the respective addresses every time a first request signal indicating target transmission speeds of the respective addresses is received, the amounts of content data to be transmitted being determined for the respective addresses" Naruse discloses (¶0050) that the receiving control unit in mobile terminal calculates the transmission speed in order to control the bit rate as represented in Fig. 4. Naruse further discloses (¶0037) that the receiving control unit monitors the data storage volume to be stored in the data storage unit. Naruse further discloses (¶0052 and ¶0053) that the mobile terminal requests the corrected transmission speed to the transmission control unit as represented in Fig. 4.

As to "segmenting the content accumulated in a content accumulation unit and transmitting each segmented data of the content addressed to each of the addresses using said communication step" Naruse discloses (¶0034) that the transmission system transmits packetized data of audio, video, data to mobile terminal as represented in Fig. 2.

Naruse meets all the limitations of the claim except "content transmitted to communication units with addresses". However, Roman discloses (¶0036 and claim 10) that the cable content is communicated to the device based on the IP

address of the device in a data network. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse's invention by indicating addresses for communication units as taught by Roman in order to deliver wide range of entertainment and data services to users using correct transmission speed.

Combination of Naruse and Roman meets all the limitations of the claim except "content data is transmitted based on transmission speeds of addresses". Delavega further discloses (§0027 and §0028) that in a WAN/Wi-fi base station, receiver receives data at upto 54 mbps and in cellular wireless network, data speed is ranging 50 to 144 kbps. Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to modify Naruse and Roman's inventions by previously paying for program content as taught by Delavega so the viewer does not have to go through trouble of making payment while watching program content.

Regarding **claim 11**, combination of Naruse, Roman and Delavega meets all the limitations of the claim except "a program for a content transmission device that transmits a content over a communication path, said program causing a computer to execute the steps included in the content transmission method according to claim 9." However, the Examiner takes official notice that it was well known in the art at the time of the invention to store computer program on computer readable medium. Therefore, it would have been obvious to one of

ordinary skills in the art at the time of the invention to store computer readable program on recorded medium to Naruse and Roman's system would have yielded predictable result of easily installing program on the other computer devices.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US PG Pub 2005/0177851 to Murao discloses mobile communication terminal system which enable user to receive content related to cable TV.
- US Patent 6,904,427 to Yi discloses communications system handoff operation combining turbo coding and soft handoff techniques.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PINKAL CHOKSHI whose telephone number is (571) 270-3317. The examiner can normally be reached on Monday-Friday 8 - 5 pm (Alt. Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PRC/
/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2623